

# Notice of Allowability

Application No.

10/695,709

Examiner

Julian Mercado

Applicant(s)

FORMANSKI ET AL.

Art Unit

1745

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6-28-07.
2. ☒ The allowed claim(s) is/are 1-3,5-11,13-19,21-27 and 29-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Remarks***

This Office action is responsive to applicant's amendment filed on June 28, 2007.

Claims 1-3, 5-11, 13-19, 21-27 and 29-32 are pending.

### ***Claim Rejections - 35 USC § 102***

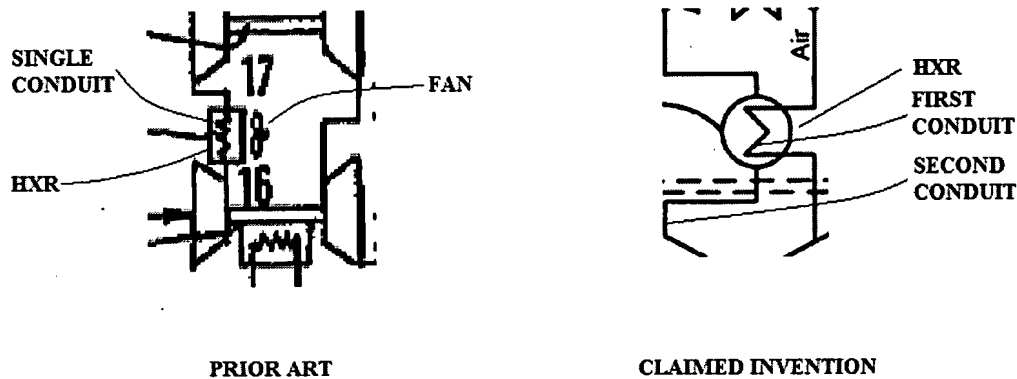
The rejection of claims 3, 11 and 27 under 35 U.S.C. 102(b) based on Buswell et al. (U.S. Pat. 5,360,679) has been withdrawn.

The prior Office action relied on Buswell et al.'s teaching of a first stage compressor [130], a second heat exchanger [132] and a second stage compressor [134]. Applicant submits that "while the Buswell intercooler 132 may reduce the temperature of the first pressurized air stream from the first stage 130, it does not transfer heat between the first air stream and the exhaust stream." Upon further consideration, this argument is found persuasive. In Buswell et al., the first air stream is cooled from 251°F to 140°F. See col. 6 line 59 et seq. The heat is removed by what appears to be shown as a fan which is known in the art to circumvent the heat soak that would otherwise occur; see Figure 2, with emphasis on the reference character under [17], which appears to the examiner as a universally-accepted symbol for a fan and which is also the same symbol used by applicant for "variable guide blades" [33]. (similar features are shown for [202] and [208], both of which are also heat exchangers) Thus, the fluid flow in Buswell et al. has a single fluid stream and does not teach or suggest the second heat exchanger as transferring heat to an exhaust stream of the fuel cell, instead, it transfers the heat as waste heat

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to the ambient atmosphere. Applicant's invention, in comparison, uses a heat exchanger [28] which has *two* conduits for the pressurized air stream and the exhaust stream. See Figure 1.

The structural and functional differences between the prior art and applicant's claimed invention may be further appreciated in view of the following illustration:



### *Allowable Subject Matter*

Claims 3, 11 and 27 are allowed for the foregoing reasons.

Claims 1, 2, 5-10, 13-19, 21-26 and 29-32 are allowed for the reasons of record.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

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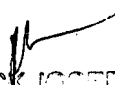
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



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PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EXAMINER